Appl. No. N/A

Amdt. dated Dec. 11, 2003

Preliminary Amendment of Divisional Application of Dec. 11, 2003

**Amendments to the Claims:** 

This listing of Claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:** 

Claims 1-21 (Canceled)

Claim 22. (Currently Amended) A method for controlling at least one piezo actuator coupled frictionally with at least one positioning member to move the at least one positioning member in either of two directions of movement as determined by relative rates of expansion and contraction of the at least one piezo actuator, and the method for controlling comprising the acts of:

generating digitized pulses each with a rising edge and a falling edge and with asymmetry between rising and falling edges of the digitized pulses varying depending on the direction of movement of the at least one positioning member;

increasing a speed of movement of the at least one positioning member by decreasing an interval between each of the digitized pulses generated in the generating act while substantially maintaining a duration of each of the digitized pulses.;

converting said digitized pulses to an analog waveform; and

driving said at least one positioning member piezo actuator with said analog waveform thereby to move said at least one positioning member frictionally coupled with the at least one piezo actuator in the selected one of the two directions.

Claim 23. (Previously Presented) The method for controlling of Claim 22, wherein the digitized pulses generated in the generating act exhibit relative absolute values of corresponding average slopes of the rising edge and the falling edge of each of the digitized pulses which correspond with the selected direction of movement of the at least one positioning member.

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Claim 24. (Currently Amended) The method for controlling of Claim 22, further comprising:

switchably coupling an <u>a electrical current</u> sink to remove charge from said <u>at least one</u> <u>piezo actuator</u> after <u>to discharge the at least one piezo actuator and arrest</u> movement of said at least positioning member in the selected direction.

Claim 25. (Previously Presented) The method for controlling of Claim 22, further comprising:

generating a position feedback signal corresponding with the position of the at least one positioning member; and

moving the at least one positioning member to a desired position responsive to a the position feedback signal generated in the act of generating.

Claim 26. (Previously Presented) The method for controlling of Claim 22, further comprising:

storing data corresponding to the digitized pulses; and

moving said at least one positioning member in a selected one of the two directions by;

- a) reading said data; and
- b) iteratively writing digitized pulses with relative absolute values of the corresponding average slopes of the rising and falling edges of each pulse corresponding with the selected one of the two directions of movement.

Claim 27. (Previously Presented) The method for controlling of Claim 22, wherein the storing act further comprises:

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storing at least one of an ordered sequence of numbers and a function for generating the ordered sequence of numbers with the ordered sequence of numbers corresponding with at least one of the digitized pulses.

Claims 28-30 (Cancelled)